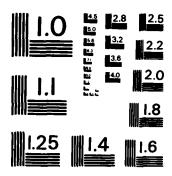


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PERSONALITY AND DEMOGRAPHIC CHARACTERISTICS OF U. S. NAVY SURVIVAL INSTRUCTORS BY PERFORMANCE LEVEL

M. D. CURLEY AND R. deCSPIKES

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ACKNOWLEDGEMENT

Naval Medical Research and Development Command, Work Unit No. MR041.01.03.0158. The opinions and assertions contained herein are the private ones of the writers and are not to be construed as official or reflecting the views of the Navy Department or the Naval Service at large.

The authors wish to thank Linda Burch and Stephen Hall for computer assistance, Mary M. Matzen and Regina E. Hunt for manuscript assistance, and the officers and men of the U.S. Navy SERE School for their support and cooperation.

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UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

	READ INSTRUCTIONS
REPORT DOCUMENTATION PAGE	BEFORE COMPLETING FORM
NMRI-83-15 AD - AI3 3	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle)	S. TYPE OF REPORT & PERIOD COVERED
Personality and Demographic Characteristics of U. S. Navy Survival Instructors by Performance	Medical Research Progress Report, Final
Level	6. PERFORMING ORG. REPORT NUMBER
Michael D. Curley and Robert deCspikes	8. CONTRACT OR GRANT NUMBER(*)
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9. PERFORMING ORGANIZATION NAME AND ADDRESS Naval Medical Research Institute	10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
Bethesda, Maryland 20814	MR04101.03.0158
	Report No. 1
11. CONTROLLING OFFICE NAME AND ADDRESS	12. REPORT DATE
Naval Medical Research and Development Command	June 1983
Naval Medical Command, National Capital Region Retherds Maryland 20814	24
Bethesda, Maryland 20814 14. MONITORING AGENCY NAME & ADDRESS(If different from Controlling Office)	18. SECURITY CLASS. (of this report)
Naval Medical Command	
Department of the Navy	UNCLASSIFIED
Washington, DC 20372	15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report)	<u> </u>
Approved for public release and sale; distribution	on unlimited
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17. DISTRIBUTION STATEMENT (of the obstract entered in Block 20, if different tre	m Report)
18. SUPPLEMENTARY NOTES	
*Dr. Curley is now Research Psychologist at the	Navy Experimental Diving Unit
Panama City, Florida. *Dr. deCsipkes is Clin SERE School, NAS Brunswick, Maine	ical Psychologist at the USN
SERE SCHOOL, MAS BIGHTSWICK, Maine	
19. KEY WORDS (Continue on reverse side if necessary and identify by block number,	
Profile; Escape; Evasion; Resistance	
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performance, 28 male volunteer instructors at th	
Evasion, Resistance, and Escape (SERE) School, N	AS Brunswick, Maine were
ranked on job performance by senior supervisors.	On the basis of this
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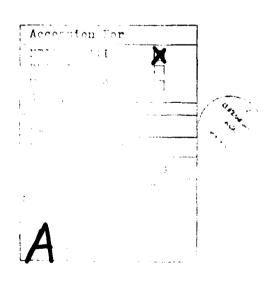
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mental ability. Significant demographic factors associated with performance level included age, rank, and years on active duty; important psychological variables included achievement, depression, and dominance. All performance groups yielded mean assessment scores indicating bright, well-adjusted members with little psychopathology. Recommendations for selection criteria for SERE instructors are discussed.

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TABLE OF CONTENTS

		Page
List of Tables	•••••	iv
Figure Captions	•••••	v
Introduction	•••••	1
Method	•••••	3
Results	•••••	6
Discussion	•••••	13
Reference Notes	•••••	17
References	•••••	18
Footnotes	•••••	19



LIST OF TABLES

TABLE 1 a. Mean values and standard deviations for six demographic variables by SERE instructor performance group

- b. Mean scores and standard deviations on the Thurstone Test for mental alertness for the three SERE performance groups
- c. Mean scores by SERE performance groups on the Personal Orientation Inventory Scales of time ratio and support ratio
- TABLE 2 Mean scores and standard deviations on the Edwards Personal Preference Schedule by SERE performance groups and general male adult sample

Figure Captions

- Figure 1. Mean POI scale profiles for each of the three SERE performance groups and a normative college sample (source: Knapp, 1976).
- Figure 2. Mean MMPI T-score profiles for each of three SERE performance groups. T-scores are plotted with the K factor.

Personality and Demographic Characteristics of U.S. Navy Survival Instructors by Performance Level

After the Korean and Vietnam wars, efforts were marshalled by the United States to examine the experiences of returned prisoners of war (POW's) in order to better prepare servicemen for the rigors of interrogation, confinement, isolation, and deprivation should they be captured by an enemy. These efforts led to the establishment of guidelines to govern conduct in a captivity setting (Note 1), and formal training programs for high risk-of-capture servicemen. At present the U.S. Navy maintains two Survival, Evasion, Resistance, and Escape (SERE) programs for this purpose. These programs train naval personnel in a relatively short yet intensive course covering basic survival and resistance techniques.

Previous research has focused on the enhancement of training for the servicemen attending these courses as students (Hutchins & Estey, 1978; Notes 2,3,4,5); there has been no systematic research directed toward the social and psychological adjustment of the SERE instructor. Only recently has the need for this research been recognized (Notes 6,7,8). SERE programs are conducted by a cadre of U.S. Navy and civilian personnel, almost all of whom volunteer for this assignment. The SERE instructor is called upon to perform a variety of unique duties under extreme environmental conditions. Included in the instructor position description is performing in the role of an "enemy" aggressor. This role is unusual in that "it requires the instructor to administer certain physical and psychological techniques in order to project the student into the realistic prisoner of war environment" (Note 8).

In the resistance phase of training, instructors must portray hostility and aggression towards the student, yet at the same time effectively communicate, teach, and evaluate. The instructor must maintain his "enemy" role and control the situation while not misusing the tools he has at his disposal. The stresses encountered by the instructor in properly carrying out his duties can be substantial and can lead to significant disruptions in normal coping behavior which interfere with satisfactory job performance and personal adjustment.

At present, Navy enlisted personnel must pass through a preliminary screening process before being assigned to a SERE program. Applicants must be volunteers, have all job performance evaluations rated in the top 10%, possess a proper security clearance, be qualified as a swimmer 2nd class, and have no alcohol, drug, or assault convictions. In addition, they must pass a physical examination, an interview by a medical officer, and have their commanding officer's recommendation. Because of the sensitive nature of this Navy job, individuals with any prior history of severe adjustment, attitudinal or psychological problems are not selected. Yet despite this selection process, professional estimates (Note 9) of the number of SERE instructors significantly afflicted with behavioral problems (e.g., alcoholism, assault) arising on the job or in their personal life due to this unique duty range from 10 to 25%. Both the Navy and Air Force have assigned psychologists full-time to their respective SERE programs, in part to aid the staffs in any difficulties they may encounter in performing this psychologically and physically demanding role.

The purpose of this research was to develop a profile of the well-adjusted and superior performing SERE instructor in order to establish criteria for the future selection of personnel best suited for the demands of the SERE instructor billet.

<u>Method</u>

Subjects

All active duty Navy personnel serving in an instructor billet at the SERE School, Naval Air Station, Brunswick, Maine in January, 1980 were asked to volunteer; all did so. Out of this group those instructors who had performed in the billet for at least 6 months and who were not due to rotate before 31 December 1980 from their current assignment were selected for the study. These criteria were instituted to ensure that only experienced instructors would be evaluated and that there would be adequate time to completely test all subjects. The final volunteer group consisted of 28 instructors, all males, who received briefings, signed consent forms, and completed all aspects of the evaluation.

Test Materials

A locally constructed questionnaire requesting information on six demographic variables was given to the subjects. In addition, the following four standardized paper-and-pencil tests were administered:

1. Edwards Personal Preference Schedule (EPPS). This test purports to measure a number of relatively independent normal personality variables, and attempts to minimize the influence of socially desirable responses to its contents (Edwards, 1959). The EPPS was designed for counseling and guidance, and was selected for inclusion because of these qualities.

- 2. <u>Personal Orientation Inventory (POI)</u>. The POI emphasizes the self-actualization of personality and is concerned with how and to what extent the average person can become more effective and self-fulfilled (Knapp, 1976). Tests items are non-threatening. The POI has substantial normative data available on self-actualizers and non-actualizers, and is based upon the theories of Abraham Maslow. The POI was used to provide an index of sound psychological functioning.
- 3. <u>Minnesota Multiphasic Personality Inventory (MMPI)</u>. Designed to provide an objective assessment of some of the major personality characteristics that affect personal and social adjustment, the MMPI is the foremost instrument in assessing psychopathology. It is supported by a great wealth of normative data (Hathaway & McKinley, 1967).
- 4. Thurstone Test of Mental Alertness (TTMA). A test of general mental ability, the TTMA measures problem solving and verbal skills. This test is quick and easy to administer, but correlates highly with other standardized tests of mental ability (Thurstone & Thurstone, 1968).

Raters

Three senior experienced supervisors in direct contact with SERE instructors at NAS Brunswick served as performance raters. These raters included the officer-in-charge, the senior civilian survival specialist, and the clinical psychologist attached to the program. All three participated actively in the training and were familiar with the instructors. The raters were incumbents for at least 2 years, with a combined experience in SERE training exceeding 30 years.

Procedure

The three senior supervisors of SERE instructors stationed at NAS Brunswick were asked to formulate general written criteria upon which to evaluate SERE instructors. Ten traits were unanimously agreed upon as being necessary to perform the job well and served as the basis for the rank-ordering of all instructors. These traits were: maturity, adaptability, self-reliance, dependability, initiative, confidence, selfesteem, objectivity, motivation, and intelligence. A discussion of these traits among the experimenters and supervisors indicated agreement on definition of these ten traits. Each supervisor then independently rank-ordered the 28 SERE instructors using the 10 criteria. These independent rankings across pay-grade yielded high inter-rater agreement ranging from r_{rho} +./5 to +.84, with a mean r_{rho} of +.79. The rankings from the three supervisors were combined to form a mean overall ranking for each instructor. On the basis of this mean ranking, each instructor was assigned to one of three groups. The 10 highest ranking subjects were assigned to the Superior Performing (SP) group, the next 8 highest ranking subjects were assigned to the High Performing (HP) group, and the lowest ranking 10 subjects were assigned to the Performing (P) group. This division of subjects by ranking was then presented to the supervisors for comment. All supervisors indicated that the final ranking represented an accurate consensus regarding performance of one instructor vis-a-vis another.

All psychological testing was administered by the experimenters at NAS Brunswick in both group and individual sessions.

Results

<u>Demographic</u>

The profile of the superior performing SERE instructor yields a male who significantly differs from the average performing instructor by being older, holding a higher pay grade, and having more years of active military service. The superior performer has completed one year of college, served less than two years as a SERE instructor, and is the number 2 child in his family. Table 1a presents the means for each instructor performance group on six demographic variables obtained from the questionnaire.

Table 1
a. Mean Values and Standard Deviations for Six Demographic Variables by
SERE Instructor Performance Group

<u>Variable</u>	Group							
	<u>sp</u> (SD)	HP(SD)	<u>P</u> (SD)					
Age	35.3 (7.4)	34.2 (5.8)	31.5 (7.1)					
Months on Active Duty	181.7(63.9)	186.0(59.7)	133.8(75.8)					
Pay Grade	6.8 (1.0)	6.1 (0.3)	5.9 (0.7)					
Months as SERE Instructor	21.7(16.9)	33.8(31.0)	23.9(18.8)					
Years of Education	12.8 (1.5)	12.0 (0.0)	12.3 (1.5)					
Order of Birth	1.9 (1.1)	1.8 (1.2)	3.0 (1.8)					

b. Mean Scores and Standard Deviations on the Thurstone Test of Mental Alertness for the Three SERE Performance Groups

		<u>Scales</u>	
<u>Group</u>	<u>Linquistic(SD)</u>	<pre>Quantitative(SD)</pre>	<u>Total</u> (SD)
SP	32.4(7.6)	25.4(5.8)	57.8(12.9)
HP	33.0(6.8)	22.9(6.8)	55.9(12.0)
Р	34.8(6.1)	26.4(6.5)	61.2(12.0)

c. Mean Scores by SERE Performance Groups on the Personal Orientation Inventory Scales of Time Ratio and Support Ratio

Scale

SERE GROUP	Time Ratio	Support Ratio			
Superior Performers	1:2.6	1:1.9			
High Performers	1:2.8	1:2.2			
Performers	1:3.9	1:1.9			

The means on each variable for the three performance groups were compared using analysis of variance. A significant difference in pay grade was found among the groups $[F(2,25)=3.53,\,p<.05]$, with the SP group significantly higher in pay grade than the P group $[\underline{t}(18)=2.24,\,p<.05]$. No other group comparisons were statistically significant. The degree of relationship between these dependent measures and overall instructor ranking was measured using the Spearman rho coefficient, yielding significant correlations between performance ranking and months on active duty (rho = +.484, p < .02) and pay grade (rho = +.579, p < .01). The relationship between performance and age approached statistical significance (rho = +.337, p < .10). These data indicate that, in general, the older, more senior instructor in terms of pay grade and time in service was perceived as performing at a higher level in this position than his peers.

Experience as a SERE instructor was not significantly correlated with performance, nor was educational level. Though not statistically significant, it is of interest that the P group individual was born later into his family (3rd child) when compared to the SP or HP group (2nd child).

Thurstone Test of Mental Alertness

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The mean TTMA scores for the three performance groups are presented in Table 1b. Scores on the Linguistic, Quantitative, and Total scales were not related to performance ranking. Spearman correlation coefficients ranged from -.094 to -.041, indicating essentially zero relationships between performance ranking and TTMA scores.

Total TTMA scores of all groups were compared to published 1967 norms for \sim 4,000 male college applicants with a high school education

(Thurstone & Thurstone, 1968). The SP and HP groups fall between the 60th and 70th percentile ranks, with the P group falling between the 70th and 80th percentile. All mean SERE group scores exceeded the scores of 60% of the normative group, suggesting that taken together SERE instructors possess more verbal and quantitative ability than the average male college applicant.

Personal Orientation Inventory

The two major scales of the Personal Orientation Inventory are Time Ratio and Support Ratio scales. The Time Ratio scale reflects the degree to which a person lives in the present rather than in the past or future. The Support Ratio scale measures the degree to which a person's mode of reaction is "self"-oriented or "other"-oriented (Knapp, 1976). Table 1c presents the Time and Support Ratio scores for the three SERE performance groups. The Time Ratio scores for the SP and HP groups fall slightly below the normal range of Time Ratio scores (i.e. 1:3.6 to 1:4.8). However, close examination of the data revealed that one individual in each of the two SERE groups possessed non-self-actualized scores. Deletion of the scores of these two individuals from calculation of the mean brings the mean group score into the normal range. Support Ratio scores are relatively low but in the normal range (i.e. 1:1.5 to 1:2.9). Again, two individuals had low scores which lowered the mean considerably in the SP and P groups.

The Personal Orientation Inventory sub-scale scores from the SERE groups indicate that all groups reflect a composition of relatively healthy, normally functioning men. As can be seen clearly from Figure 1, scores on all 10 subscales were clustered around a standard score of 50. The only scales to show very mild depression or elevation across

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FIGURE 1

groups were the scales of existentiality and self-regard, respectively. These variations suggest that although instructors in all three groups possess high feelings of self-worth, there is also a tendency toward holding values rigidly. Very similar profiles to those of the SERE groups have been obtained from supermarket managers and supervisory personnel (see Knapp, 1976, p. 77). Also plotted in this figure are the profile scores for entering college freshmen; these scores are depressed when compared to the scores yielded by the SERE groups.

Edwards Personal Preference Schedule

Of the 16 variables comprising the EPPS, only the Achievement variable was significantly correlated with performance ranking; high instructor ranking was associated with high achievement scores ($r_{\rm rho}$ = +.425, p < .05). The Achievement variable is associated with manifest needs to "do one's best, to be successful, to do a difficult job well, to accomplish tasks requiring skill and effort" (Edwards, 1959). The SP group's mean Achievement score of 17.8 places it between the 75th and 80th percentile of a general male adult group of 4,031.

The mean EPPS scores of each performance group and general male adult norms are presented in Table 2. Perusal of the scores reveals some interesting contrasts. All three SERE performance groups scored considerably higher than the general male adult sample on the scales of Exhibition (i.e., to be the center of attention; to talk about personal adventures and experiences); Dominance (i.e., to be a leader, to make group decisions); and Heterosexuality (i.e., to engage in social activities with the opposite sex; to listen to or to tell jokes involving sex). Conversely, all SERE groups scored substantially lower than the norm on scales of Deference (i.e., to let others make

Table 2

Mean Scores and Standard Deviations on the Edwards Personal Preference

Schedule by SERE Performance Groups and General Male Adult Sample

		Group		
Variable	GMAS(SD)	SP(SD)	HP(SD)	<u>P</u> (SD)
Achievement	14.8(4.1)	17.8(3.2)	15.9(2.8)	15.1(4.1)
Deference	14.2(3.9)	13.1(2.4)	11.5(4.0)	11.4(2.7)
0rder	14.7(4.9)	15.6(4.7)	11.6((4.5)	13.6(5.2)
Exhibition	12.8(4.0)	14.7(3.5)	15.9(2.0)	14.8(2.5)
Autonomy	14.0(4.4)	13.1(4.5)	12.1(4.2)	13.5(6.2)
Affiliation	14.5(4.3)	12.1(4.1)	14.5(2.0)	13.1(5.8)
Intraception	14.2(4.4)	12.6(5.2)	12.5(1.9)	12.7(3.4)
Succorance	10.8(4.7)	10.3(4.3)	8.1(4.0)	8.6(2.0)
Dominance	14.5(5.3)	17.9(4.4)	15.6(4.7)	16.1(5.1)
Abasement	14.6(5.1)	10.0(6.6)	11.9(7.0)	10.6(5.6)
Nurturance	15.7(5.0)	13.1(4.6)	16.0(4.4)	15.6(5.9)
Change	13.9(4.8)	15.4(5.9)	19.1(2.6)	15.7(5.4)
Endurance	17.0(4.9)	15.4(4.1)	17.4(6.0)	16.6(5.0)
Heterosexuality	11.2(7.7)	20.5(4.1)	18.6(4.4)	22.7(3.7)
Aggression	13.1(4.6)	8.5(2.8)	8.9(2.6)	10.4(5.2)
Consistency	11.4(2.0)	11.9(1.5)	12.5(1.8)	11.7(2.4)

Note. GMAS; $\underline{n} = 4031$.

decisions; to get suggestions from others); Abasement (i.e., to feel guilty when one does something wrong; to feel inferior to others in most respects); and Aggression (i.e., to become angry; to blame others when things go wrong).

The SP group scored very high on the Achievement and Dominance scales (> 91st percentile) and low on the Abasement (21st percentile) and Aggression (< 22nd percentile) scales when compared to the general male adult sample.

Minnesota Multiphasic Personality Inventory

When combined across performance groups the SERE instructors do not differ substantially from general adult male performance on the MMPI. As groups, the SP group tended to score higher than the norm on the \underline{K} scale (identifies subtle kinds of test distortion), \underline{Hy} scale (use of physical symptoms as a method of resolving conflicts) and \underline{Mf} scale (personality features related to male sexual inversions). High performance group members scored very close to normative means, and the P group had mildly elevated scores on the \underline{K} and \underline{Hy} scales. Multiple comparisons among SERE performance groups on each MMPI scale revealed that the SP group scored significantly lower (\overline{X} = 16.6) than the P group (\overline{X} = 20.8) on the Depression scale (pessimistic outlook on life, feelings of hopelessness or worthlessness; \underline{p} < .05). No other comparisons were significantly different.

SERE performance group profiles plotted as T-scores with \underline{K} factor are presented in Figure 2. No substantial elevations or depressions are noted, with the exception of the \underline{K} scale mean value (\overline{X} = 64) for the SP group. However, T-scores in the 57-64 range are common among college

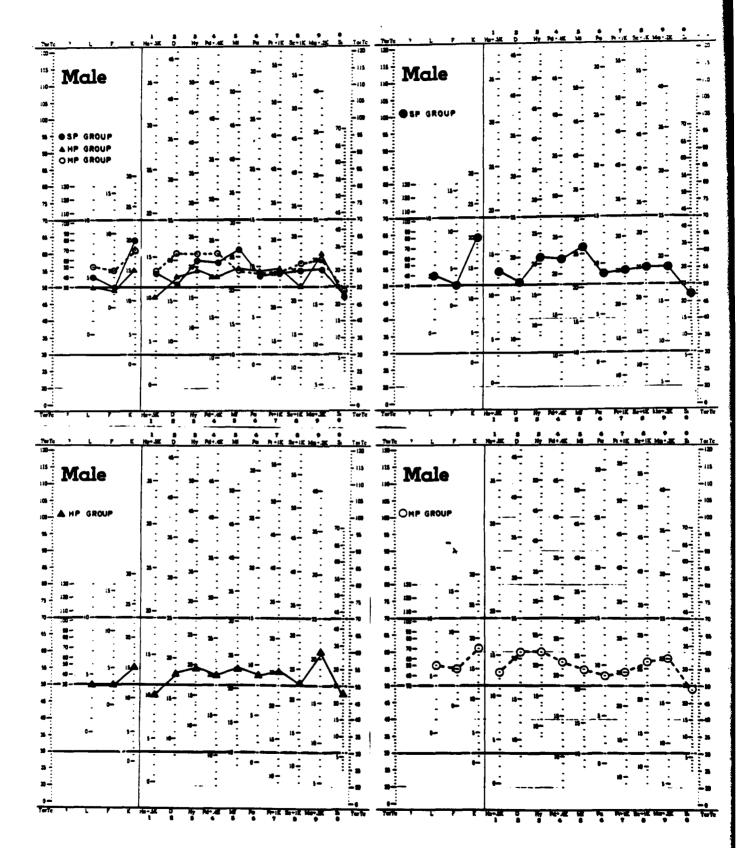


FIGURE 2

level and upper-middle-class testees, and generally reflect an appropriate favorable self-perception (Dahlstrom, Welsh, & Dahlstrom, 1972).

Discussion

Taken together, all three SERE performance groups consist of relatively normal, bright achievers with little serious psychopathology as measured by the evaluation instruments used in this study. Those instructors ranked in the superior performing group are high achievers, seek leadership positions, can make decisions, have healthy self-esteem, and possess better than average verbal and quantitative skills.

The problems exhibited by instructors in their adjustment to the SERE instructor billet do not appear to be representative of any performance group. Of those instructors included in the study, two were terminated from SERE duty and six others were provided psychological counseling after manifesting signs of personal maladjustment. Six of these eight individuals were rated in the P group while the remaining two were assigned to the HP group. However, it should be noted that individuals in the Performing (P) group are, for the most part, carrying out their duties in a satisfactory manner. Examination of mean scores for this group of instructors who had experienced difficulty when compared to the scores of the performance groups provided some interesting trends in the data. The individuals manifesting maladjustment tended to be more depressed and socially introverted on the MMPI and had a greater need for autonomy as measured by the EPPS. However, none of the MMPI scales were found to be of clinical significance, i.e., above the 70th percentile. All other demographic and test data did not differentiate these individuals from their apparently better adjusted counterparts. In short, little real

differences were found. It can be deduced that either the measurements themselves were not sufficiently sensitive to be able to detect the actual and significant differences or the maladjustment group itself did not represent any common or unusual features.

Although one variable significantly related to superior performance was pay-grade of E-7 (Chief Petty Officer), this finding should be interpreted with respect to the duties of a SERE instructor. Upon assignment to the SERE School, Chief Petty Officers undergo the same probation and apprenticeship training as lower ranking personnel. Before assuming responsibility commensurate with their rank, they must perform satisfactorily in all the field training and resistance laboratory positions. For example, before assuming the role of an enemy sergeant, the Chief Petty Officer must have successfully performed the roles of private and corporal. A second point is that not all Chief Petty Officers were highly ranked in the performance evaluation; in fact, two Chief Petty Officers were ranked among the bottom 10 performers, whereas the top 10 performers included one 2nd Class Petty Officer and three 1st Class Petty Officers.

It is interesting that the amount of time spent in the SERE instructor billet was not related to performance ranking: One explanation for this finding centers on the type of skills needed in the billet. Compared to some technical fields (e.g., computers, electronics) the SERE instructor billet does not rely as heavily on a cumulative buildup of previous knowledge and specific techniques. After completing the SERE course as a student, the instructor spends 6 months in a probationary and apprentice status. If successful during this period, the instructor is then graduated to full instructor status.

Thus, if an individual possesses the necessary social, intellectual, and motivational qualities upon entry into the field, at the end of a year the survival and resistance skills needed to perform successfully as a SERE instructor can be obtained.

Based upon the results of this study, the only additional factor recommended for incorporation into the selection process is rank of Chief Petty Officer (or above). Achievement of the rank of Chief Petty Officer in the U. S. Navy represents a highly visible and significant transition from worker to manager marked by many distinguishing events. These events include the donning of a different uniform, an initiation ceremony closed to subordinates, and the addition of perks and benefits not available to lower ranking personnel. Accompanying these changes, however, are increased responsibilities and a new, more demanding set of expectations placed upon the new "Chief" concerning his performance in all areas. These factors contribute to a general maturation of the individual which often translates into better job performance as viewed by the Chief Petty Officer's superiors.

The current formal and informal selection procedures used by the SERE instructor assignment officer and SERE school staff appear to be operating effectively; that is, personnel assigned to SERE instructor duty at NAS Brunswick are, as a group, bright and well-adjusted individuals who are performing their jobs satisfactorily. Those few individuals who display inappropriate behaviors and adjustment problems tend to fall in the HP and P groups and should be counseled individually by the clinical psychologist. This evaluation found no significant evidence that superior performers were brighter, more educated, or more experienced in SERE, than average performers, nor did the groups

substantially differ from each other in the personality traits assessed in this study.

Reference Notes

- Code of conduct for members of the Armed Forces of the United States.
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